

CLAIMS

1. A management device or arrangement (D) for a communication network (N)
5 which includes a multiplicity of equipment elements (NE-ij), each associated with a primary data management protocol, said device or arrangement (D) including mediation means (MM) coupled to said equipment elements (NE-ij) and to functional interface means (MIF) and system interface means (MIS) coupled to a network management system (NMS), characterised in that it includes protocol
10 adaptation modules (Pa-j) in number at least equal to the number of management protocols associated with said equipment elements, and each arranged i) to convert primary data, coming from an equipment element (NE-ij) in accordance with a management protocol, into secondary data adapted to said mediation means (MM), and ii) to convert secondary data, intended for an equipment
15 element (NE-ij), into primary data in accordance with a management protocol adapted to said equipment element, and in that said mediation means (MM) are arranged, on receipt of the primary or secondary data, to determine the associated equipment element (NE-ij) and then to feed the protocol adaptation modules (Pa-j) corresponding to said determined equipment element.
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2. A device or arrangement according to claim 1, characterised in that, on receipt of a request designating one of said equipment elements (NE-ij), said mediation means (MM) are arranged to generate a management information tree (MIT) which is representative of the links of said designated equipment element to other
25 equipment elements in said network (N).
3. A device or arrangement according to claim 2, characterised in that said mediation means (MM) are arranged, after generating said management information tree (MIT), to configure a graphical user interface (GUI) in accordance
30 with auxiliary data which are representative of said designated equipment element (NE-ij).
4. A device or arrangement in accordance with claim 2, characterised in that it includes said configurable graphical user interface (GUI)
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5. A device or arrangement according to claims 3 and 4, characterised in that it includes description modules (MD-p), each associated with at least one of said

equipment elements (NE-ij) and including said auxiliary data.

6. A device or arrangement according to claim 5, characterised in that each data description module (MD-p) is composed of at least one descriptor.

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7. A device or arrangement in accordance with claim 6, characterised in that each descriptor is composed of at least one program code file and at least one configuration file.

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8. A device or arrangement according to claim 7, characterised in that one of said program code files of a descriptor includes first data designating a type to which an equipment element (NE-ij) belongs, and another of said program code files of said descriptor includes second data designating a management information base definition associated with said equipment element (NE-ij).

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9. A device or arrangement according to claims 3 to 8, characterised in that said graphical user interface (GUI) and said mediation means (MM) are coupled via a bus (B) of the CORBA type.

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10. A device or arrangement according to one of claims 2 to 9, characterised in that it includes said functional interface module (MIF).

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11. A device or arrangement according to claim 10, characterised in that said functional interface module (MIF) includes a provisioning module (PRO), arranged to as to extract on command management information concerning said an equipment element (NE-ij) and containing said management information tree (MIT), so as to send these to said equipment.

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12. A device or arrangement according to claim 11, characterised in that said provisioning means (PRO) include program code files encapsulated in the north-plug type modules (NP).

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13. A device or arrangement according to one of claims 11 and 12, characterised in that said provisioning means (PRO) are arranged to generate a communication channel (CC) dedicated to the transportation of chosen codes between at least one connection socket and said mediation means (MM).

14. A device or arrangement according to one of claims 11 to 13, characterised in that said functional interface means (MIF) include a supervision module (SUP) suitable for allowing said network management system (NMS) to administer said equipment elements (NE-ij), and to handle the alarms and events coming from said equipment elements (NE-ij) via said mediation means (MM).

15. A device or arrangement according to claim 14, characterised in that said supervision module (SUP) is arranged in the form of a public interface of the IDL type.

16. A device or arrangement according to one of claims 1 to 15, characterised in that it includes said system interface means (MIS).

17. A device or arrangement according to claim 16, characterised in that said system interface means (MIS) includes a navigation module (NAV) arranged to allow said network management system (NMS) to control said graphical user interface (GUI) and said mediation means (MM).

18. A device or arrangement according to one of the claims 16 and 17, characterised in that said system interface means (MIS) include a persistency module (PER) which is arranged so as to allow the storage in memory of certain information data contained in said management information tree (MIT) and relating to the equipment elements (NE-ij) associated with a chosen level of priority.

19. A device or arrangement according to claim 18, characterised in that said persistency module (PER) includes an application programming interface (PAA)

20. A device or arrangement according to claim 19, characterised in that said application programming interface (PAA) is of the JDBC type.

21. A device or arrangement according to one of the claims 1 to 20, characterised in that at least one of said mediation means, the graphical user interface Module (GUI), the functional interface means (MIF) (MM) and the system interface means (MIS) is composed of program code files.

22. A management server (MS) for a network management system (NMS),

characterised in that it includes a management device or arrangement (D) according to one of the preceding claims.

23. A network equipment element (NE-ij), characterised in that it includes a
5 management device or arrangement (D) according to one of the claims 1 to 21.

24. Use of the management device or arrangement (D), the management server (MS), and the network equipment (NE-ij) according to one of the preceding claims, in the network technologies which are to be managed.

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25. Use according to claim 24, characterised in that said network technologies are chosen from a group which includes transmission networks, of the WDM, SONET and SDH types in particular, of data of the Internet-IP and ATM type in particular, and speech of the conventional, mobile and NGN type in particular.

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